

# New mammal records from Nepal<sup>1& 2</sup>

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(With a text-figure)

In this paper, five new records of mammals collected from Nepal are discussed. Two ungulates (*Ovis ammon* and *Tragulus meminna*) and three insectivores (*Crocidura attenuata*, *Suncus stoliczkanus* and *S. etruscus pygmaeoides*) are reported from Nepal for the first time. The new locality records are provided and the general ecology of the areas from which the mammals were collected is discussed.

## INTRODUCTION

Relatively few mammal surveys have been conducted in Nepal due to its inaccessibility to foreigners until 1952. With the signing of the Treaty of Saguli (Karan 1960) the British sent an envoy to the Kathmandu Valley in 1815. Under the direction of Hodgson, 70 genera and 114 species of mammals were collected of which 40 species were described as new (Gray 1846, 1863). During the 1920's several expeditions entered Nepal from the northern approach to Mount Everest resulting in the collection of 52 mammal specimens belonging to 10 species. Two species and one subspecies were described as new (Thomas & Hinton 1922). Hinton (1922) provided a detailed report on the house rats of Nepal based

on earlier collections. Hinton & Fry (1923) reported on the mammal survey conducted by the Bombay Natural History Society from 1922 to 1923. They listed a collection of 304 specimens consisting of 34 genera and 44 species. Biswas & Khajuria (1955) collected a small series of mammals from east Nepal of which two species and two subspecies were described for the first time. A later list of the mammals of eastern Nepal was provided by Biswas & Khajuria (1957). The Nepal Health Survey 1965-1966 collected 460 mammals consisting of 18 genera and 28 species (Worth & Shah 1969). In 1968, the German Nepal Himalaya Expedition investigated the Insectivora and Rodentia of eastern Nepal and listed 10 genera and 14 species (Weigel 1969).

Since there was very little information avail-

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able with respect to the mammal and ectoparasite fauna of Nepal, an extensive host-parasite programme was undertaken from July 1966 to August 1970. Over 4000 mammal specimens were collected during this period. From this material, two ungulates (*Ovis ammon* and *Tragulus meminna*) and three insectivores (*Crocidura attenuata*, *Suncus stoliczkanus* and *S. etruscus pygmaeoides*) are reported from Nepal for the first time in this study. Nepal is divided into seven geographical life zones (Chesemore 1970, Hagen 1961; Karan 1960). These life zones are described in detail by Hagen (1961). The present paper provides a listing of the new locality records with a description of the general ecology of the areas from which the mammals were collected or sighted. A distribution map of the new locality records is provided (Fig. 1).

## DISTRIBUTION RECORDS

1. *Ovis ammon hodgsoni* Blyth, 1841 (The Nayan or Great Tibetan Sheep)

1 specimen: Mugu, Mugu District— $29^{\circ}48'N$ ,  $82^{\circ}33'E$ .

1 sighting: Chum Gompa, Gorka District— $28^{\circ}35'N$ ,  $85^{\circ}07'E$ .

The previously recorded distribution of this species encompasses Tibet (Ellerman & Morrison-Scott 1966). *O. a. hodgsoni* is a race of the Argali *Ovis ammon* (Linnaeus). Unsubstantiated reports of this species exist for the northern border areas of Nepal (Ellerman & Morrison-Scott 1966; Prater 1965). Earlier reports by Hodgson (in Gray 1846) listed four *O. ammon* skulls as being collected from the northern hilly regions of Nepal. It is difficult to discern the validity of these records since



Fig. 1. New locality records for five species of mammals from Nepal.

Hodgson was confined to the capital city of Kathmandu and had to depend on traders and local hunters for his specimens.

New locality records for *Ovis ammon hodgsoni* were obtained from two different sites in Nepal (Fig. 1, 1). In March, 1968, the skull of a five-year old ram was found near Mugu in the high Himalayas of western Nepal at an elevation of 4700 m. Mugu is a small village located in far western Nepal situated near the northern border adjacent to Tibet. It is surrounded by the Ladakh Himal and Great Himalayan Range on the north with the Kanjeroba Himal massif enclosing it from the east (Hagen 1961). In addition, local people reported sighting an occasional band of these wild sheep between the months of February and April. The sheep seem to stray across the Tibetan border during this season. Additional ungulates that occur in this region are the bharal (*Pseudois nayaur*) and the Himalayan tahr (*Hemitragus jemlahicus*).

A new sighting record of *O. a. hodgsoni* at a second locality in Nepal was reported to the authors by an Austrian engineer, Mr. Peter Aufschneider, who photographed a band of 15 nayan above Chum Gompa (28°35'N, 85°07'E). Chum Gompa, located in north central Nepal (Fig. 1), is an isolated village inhabited by migratory herdsmen during the summer months. Broad alpine meadows project from the steep face of the Greater Himalayas. The sheep graze on the southern slopes which are close to rocky outcroppings.

2. *Tragulus meminna* Erxleben, 1777 (Indian Spotted Chevrotain or Mouse Deer)

1 specimen: Mahadeva, Banke District—28°13'N, 81°56'E, at an elevation of 227 m.

3 sightings: 2 Mahadeva, 1 Tamispur, Nawal Parsi District—27°34'N, 83°57'E, at an elevation of 97 m.

The approximate distribution of this species encompasses Ceylon and peninsular India; in India north to the central provinces (Ellerman & Morrison-Scott 1966). Prater (1965) lists the distribution of the chevrotain as the forested areas of Ceylon and southern India at elevations up to 1850 m, with 24°N latitude being the approximate limit of its northerly range. Three Indian chevrotain were sighted and one partial skeleton collected in the Nepal terai (28°N) by the senior author.

The first sighting of the chevrotain in Nepal was on 15 February 1968, at Tamispur (Fig. 1—27°34'N, 83°57'E). It was seen in tall elephant grass (*Cymbopogon* sp.) at a distance of 3 m. Tamispur is situated at the far western end of the Rapti Valley which is surrounded by the Mahabharat Range to the north and the Churia Hills to the south. This area lies near the juncture of the Binai Nadi and Narayani rivers. Homogenous stands of sal (*Shorea robusta*) grow on the slopes of the Mahabharat and Churia hills up to 1250 m. These forests extend to the edge of the alluvial flood plain. *Acacia* and *Dalbergia* grow along the rivers and cover the flood plain. Elephants grass (*Cymbopogon* sp. and *Bothriochloa* sp.) occurs commonly in the disturbed areas around human habitations and the marshy lowlands.

Additional ungulates found in the Tamispur area are: gaur (*Bos gaurus*), nilgai (*Boselaphus tragocamelus*), four horned antelope (*Tetracerus quadricornis*), sambar (*Cervus unicorn*), chital (*Axis axis*), hog deer (*Axis porcinus*), barking deer (*Muntiacus muntjak*), wild boar (*Sus scrofa*) and rhinoceros (*Rhinoceros unicornis*).

In March, 1969, a partial skeleton was obtained and two live chevrotain sighted in the western terai of Nepal at Mahadeva (28°13'N, 81°46'E). Local hunters brought in a decomposed carcass for the senior author to examine.

In addition, two chevrotain were sighted in a dense stand of sal (*Shorea robusta*). Mahadeva is located in western Nepal at the base of the Siwalik foothills. Dense stands of sal cover the southern slopes of the Siwaliks up to an elevation of 1300 m. Cultivation is prominent with rice and mustard the principal crops raised. The sal forests are interspersed with lianas (*Terminalia* sp. and *Anogeissus* sp.). *Acacia* sp. and *Ribes* sp. predominate in disturbed areas. Tamarix thickets line the rivers and flood plains.

Many of the ungulates found at Tamispur occur at Mahadeva with the exception of gaur and rhinoceros. Both of these species have been eliminated from the area by extensive hunting. Small herds of swamp deer (*Cervus duvauceli*) occur among Tamarix thickets that grow along the streams of the area.

3. *Crocidura attenuata* Milne-Edwards, 1872,  
(Gray Shrew)

1 specimen: Kakani, Nuwakot District—27°49'N, 85°16'E, at an elevation of 2440 m.

The approximate distribution of this species is Assam, Bhutan, Sikkim, and Darjeeling (Ellerman & Morrison-Scott 1966). A single specimen of *Crocidura attenuata* was trapped at Kakani in the central midlands of Nepal (Fig. 1, 3). Two additional specimens were collected in Darjeeling, West Bengal, India, 20 km east of Nepal. Kakani is located on the southern flank of the Sheopuri Mountain Range. The north and east slopes are covered with natural stands of vegetation and the south and west slopes are heavily farmed. The area is characterized as a warm-temperate zone with three distinct broad-leaf forest types: mixed forests of *Schima-Castanopsis* at the base of the mountains; oak-laurel at middle elevations; and oak-rhododendron at the mountain tops.

Many small mammals were trapped along the forest edge bordering cultivated fields. These included *Mus musculus urbanus*, *Rattus nitidus*, *R. niviventer*, *R. turkestanicus*, *Soriculus caudatus*, *S. nigrescens*, *Suncus murinus*, *S. etruscus*, and *Golunda ellioti*.

4. *Suncus stoliczkanus* Anderson, 1877  
(Anderson's Shrew)

2 specimens: Bahwanipur, Banke District—27°57'N, 81°47'E, at an elevation of 158 m.

The approximate distribution of this species is Madras, Bombay, Rajputana, and Central India Provinces (Ellerman & Morrison-Scott 1966). Two specimens were taken in the village of Bahwanipur, thus extending the range to the western terai of Nepal (Fig. 1, 4). The vegetation of the area is similar to that described for Mahadeva. Thorn brush (*Ribes* sp. and *Jasminum* sp.) has overgrown abandoned fields. The two specimens were trapped from a thorn brush fence row surrounding a mango grove.

Additional small mammals taken in the vicinity were *Mus booduga*, *M. platythrix*, *Vandeleuria oleracea*, *Golunda ellioti*, *Tatera indica*, *Millardia meltada*, *Lepus nigricollis*, and *Herpestes edwardsi*.

In Nepal, the genus *Suncus* is represented by a pygmy species, *etruscus*, a medium-sized species, *stoliczkanus*, and a giant species, *murinus*. *S. stoliczkanus* resembles an immature *S. murinus*. The head and body length of *S. stoliczkanus* usually averages 65-75 mm while in *S. murinus* the head and body length is well over 110 mm.

5. *Suncus etruscus pygmaoides* Anderson,  
1877 (Pygmy Shrew)

9 specimens: 1 Kakani  
8 Melumchi, Sindu District—28°03'N, 85°33'E,  
at an elevation of 2455 m.

The approximate distribution of this species

is Darjeeling District, northeastern India (Ellerman & Morrison-Scott 1966). Nine pygmy shrews were collected at high altitudes (2440-2455 m) in the central midlands of Nepal. The previous distribution record of *S. etruscus pygmaeoides* extended to the eastern border of Nepal (88°15'E latitude). The present collections extend the distribution of pygmy shrews to 85°33'E, some 225 km west of the old records.

One pygmy shrew was collected at Kakani (27°49'N, 85°16'E) and the remaining eight were trapped at Melumchi (Fig. 1, 5). The collection site of Kakani has been previously described. Melumchi village is located in the

central midlands of Nepal and lies on a southern exposure. The area is extensively farmed with wheat, millet and potatoes raised in small plots surrounded by stone fences. These stone fences are overgrown with ferns, willows (*Salix* sp.) and wild roses (*Rosa sericea*). All specimens of *S. e. pygmaeoides* were trapped from these stone fences during July and August, 1970.

Additional small mammals trapped at Melumchi included *Mus musculus homourus*, *Soriculus caudatus*, *S. leucops*, *S. nigrescens*, *Rattus fulvescens*, *R. turkestanicus*, *R. niviventer*, *R. nitidus*, *Vandeleuria oleracea*, *Suncus murinus* and *Dremomys lokriah*.

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